REMARKS

Summary of the Amendment

Upon entry of the above amendment, claims 98 – 110, 112 – 115, and 117 – 131 will have been amended. Accordingly, claims 98 – 131 currently remain pending.

Summary of the Official Action

In the instant Office Action, the Examiner has objected to claim 108 and has rejected claims 98 – 113 based upon formal matters and over the applied art of record. By the present amendment and remarks, Applicants submit that the objections and rejections have been overcome, and respectfully request reconsideration of the outstanding Office Action and allowance of the present application.

Acknowledgment of Interview with Examiner Fortuna

Applicants gratefully acknowledge the courtesy extended to their representative by Examiner Fortuna in conducting a personal interview on June 16, 2011. In the interview, Applicants reiterated that the claims as previously presented corresponded to the allowed claims from the European procedure. Further, Applicants pointed out the structural differences between Applicants' claims and the applied art of record. In particular, Applicants' claims recite at least two gap formers having a forming roll and a forming shoe, none of which are disclosed in the cited art of TURNER. Further, Applicants pointed out that, if the TURNER devices were operated in their basic manner, i.e., without the elements to make the fines distribution in the layer uniform, the sides of layers having the highest content of fines would not have been couched or joined together in the manner recited in Applicants' claims.

The Examiner also noted that, while the claims may structurally define over the applied

art, the disclosure by TURNER raises questions as to the patentability of the method claims. Applicants noted that amendments to the claims would clarify the structure and the method claims would clarify the method features not described or suggested by TURNER.

Objection to the Claims is Moot

Applicants submit that the objection to claim 108 is moot in view of the pending amendment. In particular, Applicants submit that the subject matter of claim 108 has been clarified to more clearly describe this embodiment of Applicants' invention. In particular, Applicants note that this claim has been amended to clarify that the higher content of fines side of the Fourdrinier layer is couched with the layers from the two gap formers, as shown in at least Applicants' Figs. 2 and 3.

Rejection Under 35 U.S.C. § 112, Second Paragraph, is Moot

Applicants submit that the rejection of claims 98 – 131 under 35 U.S.C. § 112, second paragraph, is moot. By the present amendment, Applicants have amended the claims as necessary to address and overcome the formal matters identified by the Examiner.

Accordingly, Applicants submit the claims are fully in compliance with the requirements of 35 U.S.C. § 112, second paragraph, and respectfully request reconsideration and withdrawal of the formal rejection of the claims.

Traversal of Rejection Under 35 U.S.C. § 103(a)

Applicants traverse the rejection of claims 98 – 131 under 35 U.S.C. § 103(a) as being unpatentable over TURNER (U.S. Patent No. 4,830,709) [hereinafter "TURNER"] further evidenced by U.S. Patent Nos. 3,378,435; 5,607,551; 5,238,534; or GB 2 283 766 [hereinafter "GB '766"] and SMOOK ("Handbook for Pulp & Paper Technologist") or KOPONEN (U.S.

Patent No. 4,614,566). The Examiner asserts that TURNER teaches a device and process for making multi-ply paper, in which the different plies are made separate headboxes and couched/joined together. The Examiner also refers to col. 2, ll. 12 – 18 of TURNER as teaching the advantage of joining plies using the surface having more fines on the surface. Thus, the Examiner concludes that TURNER shows all of the elements of the claimed device and, asserts that, as the dewatering in TURNER starts at the bottom and then at the top, most of the fines would be on the top surface, so that the sides of the layers having a higher fines concentration would be couched together. Applicants traverse the Examiner's assertions.

With regard to the pending rejection of the claims under 35 U.S.C. § 103(a), Applicants note the Examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness. If the Examiner does not produce a *prima facie* case, Applicants are under no obligation to submit evidence of non-obviousness. To establish a *prima facie* case of obviousness, three basic criteria must be met:

(1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;

(2) there must be a reasonable expectation of success; and

(3) the prior art reference (or references when combined) must teach or suggest all the claim limitations.

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). *See* MPEP §2142.

Further, while rejecting a *rigid* application of the teaching, suggestion, or motivation ("TSM") test in an obviousness inquiry, the U.S. Supreme Court acknowledged the importance of identifying "a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does" in an obviousness determination. *Takeda Chemical Industries, Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350, 1356-1357 (Fed. Cir. 2007) (quoting *KSR International Co. v. Teleflex Inc.,* 127 S.Ct. 1727, 1731 (2007)).

As noted in the interview with Examiner Fortuna, the independent claims have been amended to even more clearly define the distinctive structure of the embodiment of claim 98 and have been amended to more clearly define the method features as well as the structure performing such method features of the embodiment of claim 117. Further, as noted in Applicants' prior response and in the interview with Examiner Fortuna, the pending claims are based upon the claims allowed in the counterpart European application, now European Patent No. 1 075 568. Moreover, as noted above, these claims have been revised to address and overcome the formal matters identified by the Examiner and to more clearly define the structure and method features in the claimed embodiments. While the European examination is not binding or precedential to the pending proceedings in the U.S. Patent and Trademark Office, Applicants request that the Examiner at least consider the allowed European claims (provided with Applicants' previous reply) in his deliberation and consideration of the pending claims and the arguments presented herewith.

By the present amendment, Applicants' independent claim 98 has been amended to recite, *inter alia*, *at least two gap formers* structured to form at least two layers having a higher content of fines on one side, and a *couching zone in which the at least two layers are couched with each*

other. The at least two gap formers are arranged so that the one side of each of the at least two layers having the higher content of fines are fed to the couching zone in such a way that the one sides of the at least two layers having the higher content of fines come into contact with each other. *The at least two gap formers each comprises a forming roll, a forming shoe*, and two circulating endless dewatering belts. The two circulating belts are arranged to run together, forming a stock inlet arranged to be charged with a fibrous suspension from a headbox and an adjoining twin-wire zone, the charged stock inlet is led over the forming roll, whereby *the one side with the higher content of fines is located on the forming roll side*, and, starting immediately from the forming roll, the *twin-wire zone runs downwards in such a manner that the forming shoe rests on the upper dewatering belt*. Applicants' independent claim 117 recites, *inter alia*, *forming at least two layers with at least two gap formers*, the at least two layers to being formed to have one side a higher fines content and *couching together the at least two layers in a manner that the one sides of the at least two layers having the higher content of fines come into contact with each other. The at least two gap formers each comprises a forming roll, a forming shoe*, and two circulating endless dewatering belts, the two circulating belts being arranged to run together, forming a stock inlet arranged to be charged with a fibrous suspension from a headbox and an adjoining twin-wire zone, and the method further includes charging the stock inlet with the fibrous suspension and *leading the charged stock inlet over the forming roll*, whereby *the one side with the higher content of fines is located on the forming roll side*, and, starting immediately from the forming roll, *leading the at least two layers in the twin-wire zone downward and in such a manner to lead the forming shoe rests on the upper dewatering belt*. Applicants submit that no proper combination of the applied art can render obvious the claimed embodiments of the invention.

While Applicants do not agree that any proper combination of the applied documents under 35 U.S.C. § 103(a) can render obvious the claimed embodiments of the invention, in an effort to advance prosecution, Applicants have even further defined the structure of independent claim 98 and even more clearly defined the method features and the corresponding structure of independent claim 117. Accordingly, Applicants submit that the claims are now in condition for allowance and request the Examiner's acknowledgment of the same.

In previous actions, Applicants have acknowledged the section of TURNER cited by the Examiner that discloses an apparatus specially designed to join together ply faces that have "more fines and less fillers at their surface," and that this objective is achieved through dewatering both surfaces of each ply. (TURNER, column 2, lines 12 - 18). However, Applicants' position has been that TURNER more particularly describes the sheet structure of the produced layers at column 1, lines 52 - 66, which discloses that

> [t]he top ply is formed between two forming wires along a gently undulating path where the dewatering process is carried out through both its faces *to produce a web which has a more uniform distribution of fines, fillers and fibers on both its sides*, thus providing its surfaces with a greater affinity for ply bonding. This dewatering through both sides not only produces a more uniform, one-sided web (i.e., a web wherein *both sides are more nearly the same after the dewatering process*), but in addition, this degree of dewatering of the top ply is accomplished quickly so it can have a higher caliper and still be brought into ply bonding contact with the surface of the base ply which may be formed on an ordinary fourdrinier-type papermaking machine. [emphasis added].

Applicants have consistently interpreted this portion of TURNER as describing that, while the sheet is formed by TURNER to provide more fines than fillers at the layer surface for bonding, the fines are evenly distributed through the layer as a result of the structure of the forming machines, which is contrary to the pending claims.

Accordingly, to further distinguish the embodiments of the invention, Applicants have

amended to claims to clarify that the structure of at least independent claim 98 includes *two gap formers*, both of which include a forming roll, a forming shoe, and two circulating belts. Further, specifics of the path of the forming web and circulating belts is also recited, whereby the claim provides that the one side of the layer having the higher content of fines occurs on the forming roll side. Applicants further note that the method has been more clearly defined in the embodiment of at least independent claim 117 as has the structure performing parts of the method.

Applicants note that a review of TURNER reveals that this document fails to disclose *two gap formers*. In fact, TURNER does not even arguably suggest a single *gap former having a forming roll* or an arrangement by which, *from the forming roll, the twin-wire zone runs downwards in such a manner that the forming shoe rests on the upper dewatering belt*, as recited in both independent claims 98 and 117.

Further, even if any of the other cited documents cited as evidence (i.e., U.S. Patent Nos. 3,378,435; 5,607,551; 5,238,534; or GB '766, SMOOK or KOPONEN) disclosed or even suggested two gap formers that include the structure recited in at least independent claims 98 and 114, which Applicants submit they do not, Applicants submit that TURNER fails to teach an arrangement of such formers in a manner that would motivate one ordinarily skilled in the art to arranged known formers in the manner recited in Applicants' independent claims 98 and 117. In this regard, Applicants refer to the figures in TURNER, which set forth a number of former arrangements to form a multilayered web.

Particularly, Applicants agree with the Examiner's assessment that the Fourdrinier former would have a higher concentration on the upper side, i.e., on the surface opposite the forming

wire. However, the formers illustrated by TURNER for forming the top layer are specially designed to dewater through the bottom and then structured, according to the express disclosure of TURNER, to dewater through the top, which provides the uniform distribution of fines (and also prevents the layer from having a higher concentration of fines on one side, as recited in the claims. However, Applicants note that, if the structural elements of TURNER were removed to avoid evenly distributing the fines, thereby forming a layer with a higher concentration of fines on one side, Applicants note that that side with the higher fines would be located on the bottom. That is, as the water falls through the bottom of the wire at the beginning of the forming process, the fines flow to the bottom of the layer, thereby increasing their content on the wire side of the layer.

Because the formed layer in the TURNER former is inverted before it is joined with the Fourdrinier layer, the sides with the higher content of fines do not contact each other when they are couched together by TURNER. Thus, Applicants submit that the applied art of record fails to provide any reasonable rationale for forming a multi-layered web with a device or process that includes two gap formers having the specific structural elements recited in at least Applicants' independent claims 98 and 117 that are additionally arranged in the manner set forth in Applicants' independent claims 98 and 117 to achieve the desired couching of layer sides having the higher content of fines in contact with each other.

Because TURNER as evidenced by U.S. Patent Nos. 3,378,435; 5,607,551; 5,238,534; or GB '766, SMOOK or KOPONEN fails to disclose or suggest at least the above-noted features, Applicants submit that no proper combination of the applied art can render obvious the embodiments of the invention recited in at least the independent claims. Accordingly, Applicants submit that the pending claims are allowable over any proper combination of the cited art under

35 U.S.C. § 103(a), such that the pending rejection should be reconsidered and withdrawn, and the pending clams should be indicated as allowable.

Applicants also submit that one ordinarily skilled in the art reviewing the applied art would have no reasonable expectation successfully achieving the claimed embodiments since the applied art fails to disclose the recited structure of the gap formers or their expressly defined arrangements to achieve the desired multilayered web. Thus, Applicants submit that the claimed invention would not have been obvious to the ordinarily skilled artisan at the time the invention was made, such that the pending rejection should be reconsidered and withdrawn.

Further, Applicants submit that claims 99 – 116 and 118 – 131 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the embodiments of the present invention. In particular, Applicants submit that no proper combination of the applied art of record can render obvious the embodiments recited in at least claims 99 – 116 and 118 – 131.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of clams 98 – 131 and indicate that the claims are allowable.

Application is Allowable

Thus, Applicants respectfully submit that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§ 102 and 103, and respectfully request the Examiner to indicate allowance of each and every pending claim of the present invention.

Authorization to Charge Deposit Account

If for any reason a check including the amount for any necessary fees is not associated with this file, the undersigned authorizes the charging of any necessary fees, including any extensions of time fees required to place the application in condition for allowance by Examiner's Amendment, to Deposit Account No. 19 - 0089 in order to maintain pendency of this application.

CONCLUSION

In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicants' invention, as recited in each of claims 98 – 131.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Respectfully submitted,
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